

BERYLLIUM

WORKER SAFETY

Beryllium Worker Safety – Module 2

Past & present

Transcript

- President Roosevelt** No matter how long it may take us to overcome this premeditated invasion, the American people in their righteous might will win through to absolute victory.
- Narrator** The bombing of Pearl Harbor brought the United States into the center of global conflict.
- Adolf Hitler** (Excerpt)
- Narrator** And it was in this environment that the Manhattan Project was born — a race against time and against Hitler’s scientists — to build an atomic bomb first, in the hopes of ending World War II.
- Government, universities, and workers came together on a massive scale never seen before — combining new technology with unique materials, including the metal — beryllium.
- Dr. Herbert Anderson** We saved the lives of hundreds of thousands of American young men. That was quite an incentive. We thought of ourselves as heroes.
- Narrator** Heroes at home supported the heroes on the battlefield. And all of them, abroad and at home, brought World War II to an end. But peace came with a price. The United States now found itself in another war.
- Newsreel** Another outburst from Soviet Premier Khrushchev. He again promises a communist utopia, declaring that by 1980, the Soviet Union will be the world’s greatest industrial power.

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Narrator ...a war of doctrines and technology — the Cold War. The competing development of defense systems relied heavily on beryllium products and the workers that produced them.

But the Cold War battle of technologies soon extended beyond military defense systems and into space exploration. Again, government, private industry, workers, and beryllium came together in a massive coordinated effort. The arms race was joined by a Race for Space. Now all parts of industry and the military, including the National Aeronautics and Space Administration, have found use for beryllium because of its special qualities.

Beryllium is an element — a gray metal — that has a special combination of properties. It is light in weight — only one third the weight of aluminum. And yet it's amazingly strong — 6 times stronger than steel. Beryllium holds its shape over a wide range of temperature. It's not magnetic. It's transparent to x-rays. And because of all these qualities, its use has grown from weapons systems, to space exploration, to products we see and use everyday. Beryllium remains an attractive material because of its unique combination of properties. For defense applications, no substitutes for beryllium have been found.

So with all these products and uses, who at the Department of Energy works with beryllium?

Steve Abeln A beryllium worker is someone who works with beryllium on a regular basis...works in the processing of beryllium, research and development, the production of beryllium components.

Kathryn Creek They might not work with beryllium directly. They could be a custodian. They could be an industrial hygienist...a technician.

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- Steve Abeln** Machining operations, foundry operations, casting, welding operations...
- Kathryn Creek** People like pipe fitters and tinnerns and plumbers...
- Steve Abeln** Identify equipment, rip out the equipment, clean it up and send it off to waste disposal sites...those types of things.
- Raul Brunner** A beryllium worker could have a lot of different occupations...a machinist, the custodians that clean our facilities, the people that come in and work on the facility...everything from air-conditioning to plumbing...electrical.
- Fred Algarra** They have all the training required to be around beryllium.